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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,461

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Anthony S. Wagner

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THE CULBERTSON GROUP, P.C.
1114 LOST CREEK BLVD.
SUITE 420
AUSTIN, TX 78746

EXAMINER

NGUYEN, HUY TRAM

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

02/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/817,461	Applicant(s) WAGNER, ANTHONY S.	
	Examiner HUY-TRAM NGUYEN	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 17-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 17-25 is/are allowed.
- 6) ☒ Claim(s) 26 is/are rejected.
- 7) ☒ Claim(s) 27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 and 13 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>November 8, 2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments (including the amended claims 1), see Pages 10-11, filed October 26, 2007, with respect to the rejection(s) of claim(s) 1-18 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.
2. The new added claim 26 cannot overcome the prior art Schultz as described below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by **Shultz (US Patent No. 5,640,702)**.

Regarding Claim 26, Shultz reference discloses a molten metal reactor including:

- (a) a treatment chamber having a treatment chamber inlet (**Figure 1, numeral 54 – return channel**);
- (b) a feed chamber having a feed chamber outlet located adjacent to the treatment chamber inlet (**Figure 1, Letter A and arrows**);
- (c) an output chamber connected to an outlet of the treatment chamber to receive molten reactant metal and reaction products from the treatment chamber (**Figure 1, numeral 44 – reservoir**);

(d) a molten reactant metal source connected to direct molten reactant metal into the feed chamber (**Figure 1, numerals 40, 42 and A**); and

(e) a feed arrangement for releasing feed material into the feed chamber at a point that is spaced apart from a lateral wall of the feed chamber and adjacent to the feed chamber outlet, the feed material comprising material to be reacted with the molten reactant metal (**Figure 1, numerals 26, 28, 32 and 32a**).

Allowable Subject Matter

1. Claims 1-8 and 17-25 are allowed.
2. The following is an examiner's statement of reasons for indication of allowable subject matter:

Regarding Claims 1 and 19, the closest prior art **Schultz (US Patent No. 5,640,702)** discloses the claimed inventions of claims 1 and 19 including feed chutes (**16 and 26**) having feed material inlets (**23a and 33a**) into the feed chamber through which a feed material to be treated in the molten reactant metal except for the feed chute having a portion extending into the feed chamber so that the feed material inlet into the feed chamber is positioned within the area defined by the feed chamber and space apart from the boundaries of the feed chamber. **Robert et al. (US Patent No. 5,491,279)** reference discloses a similar feed chute as the claimed invention of claims 1 and 19. However, the molten reactor of Schultz cannot be modified with the feed chute design of Robert et al.

Claims 2-8, 17-25 are dependent claims of claims 1 and 19 respectively.

3. Claims 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Claim 27, Shultz reference discloses the molten metal reactor of Claim 26 except for the feed arrangement includes a feed chute extending vertically through a portion of the feed chamber. There is no motivation to add this structure to feed chute (26) of the molten reactor of Shultz.

Regarding Claim 28, Shultz reference discloses the molten metal reactor of Claim 26 except for the portion of the feed chute extends transversely through the feed chamber in a direction from one lateral side of the feed chamber toward an opposite lateral side of the feed chamber. There is no motivation to add this structure to the feed chute (26) of molten reactor of Shultz.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY-TRAM NGUYEN whose telephone number is (571)270-3167. The examiner can normally be reached on MON- THURS: 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTN
2/14/08

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797